PATENT ABSTRACTS OF JAPAN

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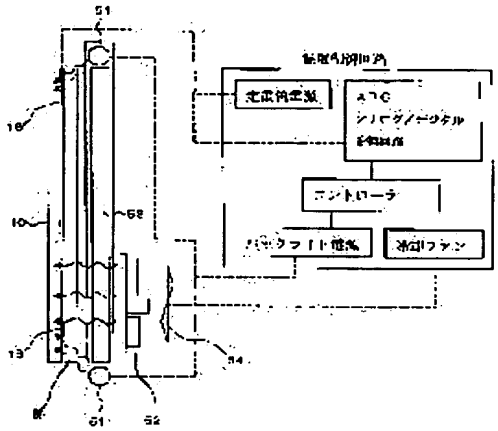
(54) LIQUID CRYSTAL DISPLAY DEVICE

(57)Abstract:
PROBLEM TO BE SOLVED: To prevent the display characteristics of a liquid crystal display panel 10 from being changed by temperature fluctuation.
SOLUTION: The temperature of the liquid crystal display panel 10 is kept constant by a temperature adjusting means provided with a temperature sensor 16 formed integrally with the liquid crystal display panel 10 and a temperature controlling circuit for controlling a cooling fan 54 or a backlight.



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Japanese Publication for Unexamined Patent Application No. 311416/2002 (*Tokukai* 2002-311416)

A. Relevance of the Above-identified Document

This document has relevance to all of the claims of the present application.

B. Translation of the Relevant Passages of the Document

See the attached English Abstract.

(DETAILED DESCRIPTION OF THE INVENTION)

(INDUSTRIAL FIELD OF THE INVENTION)

[0013] According to the arrangement of the present invention, the temperature of the liquid crystal display panel can be accurately measured by arranging the thermal sensor of the temperature control means, on the same substrate on which the thin film transistor for driving liquid crystal is formed. Further, the temperature of the liquid crystal display panel can be kept constant, because the temperature control circuit controls the drive of the cooling fan and the backlight, corresponding to the temperature of the display panel.

(REFERENCE NUMERALS)

10 Liquid crystal display panel

11 Display area

12 Gate driver terminal block

13 Source driver terminal block

14 Thin film transistor for driving liquid crystal

15 Pixel electrode

16 Thermo sensor

30 Substrate

31 Gate electrode

32 Insulation layer

33 Semiconductor layer (I layer)

34 Semiconductor layer (N+ layer)

35 Source electrode

36 Drain electrode

51 Fluorescent lamp

52 Power source circuit section

53 Light guiding plate

54 Cooling fan